

Serial No.09/726,325
HP Docket No: 10003484-1

REMARKS

This communication is in response to the Office Action dated November 6, 2003. Claims 1-3, 5-13 and 15-23 are pending in the present Application. Claims 1-3, 5-13 and 15-23 have been rejected. Claims 1-3, 5-13 and 15-23 remain pending in the present Application.

The present invention includes an electronic pen that records motion data relating to the use of the pen. It includes a pen body and a ball mounted in the pen body. A sensor in the pen body, located proximate the ball, detects motion of the ball and converts the motion into corresponding electronic signals. A memory in the pen body, electronically coupled to the sensor, receives the electronic signals and stores corresponding data related to the motion.

§112 Rejections

The Examiner states:

Claims 1 and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Said timer for determining the particular rate at which the sensor is sampled is not supported in the specification as originally filed. The Amendment filed on 3/17/2003 improperly included this limitation, said timer, which is not supported by the specification.

Serial No.09/726,325
HP Docket No: 10003484-1

Applicant respectfully disagrees and asserts that support for the above-referenced limitation is found in the specification at page 5, lines 14-17. Therefore, the Examiner's §112 rejection is not applicable.

§ 103 Claim Rejections

For ease of review, Applicant reproduces independent claims 1 and 11 herein below:

1. An electronic pen for recording motion data relating to use of the pen, comprising:
 - a pen body;
 - a ball mounted in the pen body;
 - a sensor in the pen body, located proximate the ball, for detecting motion of the ball and converting the motion into corresponding electronic signals;
 - a memory in the pen body, electronically coupled to the sensor, for receiving the electronic signals and storing corresponding data related to the motion, the data including data points related to positions of the ball and enabling extrapolation to generate lines representing the motion of the ball; and
 - a circuit, electronically coupled to the sensor and the memory for sampling the sensor at a particular rate and controlling transmission of the corresponding electronic signal from the sensor to the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled.

Serial No.09/726,325
HP Docket No: 10003484-1

11. A method for recording motion data relating to use of a pen having a body, a ball mounted in the pen body, a memory, and a sensor located proximate the ball, comprising:

detecting motion of the ball using the sensor; sampling the sensor at a particular rate using a circuit electronically coupled to the sensor and the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled;

converting the motion into corresponding electronic signals;

receiving the electronic signals;

controlling transmission of the electronic signals from the sensor to the memory using the circuit; and

storing in the memory, based upon the electronic signals, corresponding data related to the motion, the data including data points related to positions of the ball and enabling extrapolation to generate lines representing the motion of the ball.

The Examiner states:

Claims 1-20 are rejected under 35 U.S.C. 103(a), as being unpatentable over O'Donnel, Jr. (6486875 B1) in view of Schiller et al. (2002/00312243) and Stevenson et al (2002/0054026 A1).

Applicant respectfully disagrees with the Examiner's rejection. The present invention includes an electronic pen that records motion data relating to the use of the pen. It includes a pen body and a ball mounted in the pen body. A sensor in the pen body, located proximate the ball, detects motion of the ball and

Serial No.09/726,325
HP Docket No: 10003484-1

converts the motion into corresponding electronic signals. A memory in the pen body, electronically coupled to the sensor, receives the electronic signals and stores corresponding data related to the motion. Additionally, the invention provides for a circuit, electronically coupled to the sensor and the memory for sampling the sensor at a particular rate and controlling transmission of the corresponding electronic signal from the sensor to the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled.

The Examiner asserts that O'Donnell, Jr. teaches of an electronic pen similar to that of the present invention. O'Donnell Jr. is directed to a writing instrument that also functions as a computer peripheral. The writing instrument has the general configuration of a ball-point pen. The pen includes a ball for ink writing that is operatively associated with internal sensors that precisely detect the distance and direction of ball movement and relay that directional and distance data to a microprocessor which records a series of vectors similar to a computer mouse. The pen also includes interchangeable memory cartridge for the storage of the data and a wireless computer connect, for example infrared, that can communicate generated or stored data to an associated computer. The pen also includes an external LED data display, a speaker/microphone and an ink reservoir.

The Examiner asserts that O'Donnell Jr. is silent regarding the limitation of "the circuit including a timer for determining the particular rate at which the sensor is sampled" as recited in the independent claims of the present invention.

The Examiner then asserts:

Serial No.09/726,325
HP Docket No: 10003484-1

O'Donnell Jr. teaches that microprocessor 23 is programmed to achieve simultaneous data capture as a document is created with the pen and provide real time or delayed transmission to the associated computer, column 4 lines 12-15 and further that the memory can be associate with date and time clocks column 4 lines 32-35. Said feature comprising a timer and sampling at particular rate is inherent to microprocessor taught by O'Donnell Jr.

Applicant respectfully disagrees. When making an obvious rejection under 35 U.S.C. § 103, a necessary condition is that the reference or combination of the cited references *must teach or suggest all claim limitations*. (Emphasis added.) If the cited reference(s) do not teach or suggest every element of the claimed invention, then the cited reference(s) fail to render obvious the claimed invention, i.e. the claimed invention is distinguishable over the combination of the cited reference(s). Applicant accordingly disagrees with the Examiner's obviousness rejection.

O'Donnell Jr. discloses that a memory cartridge can be encrypted with security codes, data and time clocks and other means *for security and document authentication*. (col. 4 lines 29-35). The recited invention of claims 1 and 11 include the limitation of a "circuit including a timer for determining the particular rate at which the sensor is sampled". Applicant asserts that the implementation of date and time clocks by a memory cartridge *for security and document authentication* is functionally different from a circuit that includes a timer *for determining the particular rate at which a sensor is sampled*. Consequently, the implementation of date and time clocks by a memory cartridge for security and document authentication does not teach or suggest the implementation of a circuit that includes a timer for determining the particular rate at which a sensor is

Serial No.09/726,325
HP Docket No: 10003484-1

sampled. Therefore, the O'Donnell reference does not teach or suggest every limitation of the recited invention of claims 1 and 11.

Additionally, the Examiner also proposes to combine the Amano and O'Conner et al. references with the O'Donnell Jr. reference. Amano discloses a compact, miniaturized pointing device for use with an electronic apparatus, such as a computer, personal data assistant (PDA), or digital watch display screen, is provided to indicate the position of a cursor mark on the display screen. The pointing device includes an elastic member which has a body portion that extends above the surface of the electronic apparatus with a section below the surface including pressure sensitive elements and corresponding position indicators.

O'Conner et al. discloses a marking device. The marking device (MD) includes an elongated housing that has a tip configured to contact a surface. The MD also includes a pressure sensor disposed within the housing. The pressure sensor is coupled to the tip and is configured to detect when the tip contacts the surface. The MD further includes first and second acceleration sensors disposed within the housing and adjacent the tip of the MD. The first and second acceleration sensors are configured to sense acceleration of the tip in first and second directions. Responsive to the sensing of acceleration, first and second acceleration sensors generate a signal indicative of acceleration in first and second directions. The MD also includes a conversion device configured to receive first and second signals and convert first and second signals into at least one computer readable signal.

Serial No.09/726,325
HP Docket No: 10003484-1

The Examiner proposes to combine the O'Donnell Jr. reference with the Amano reference or the O'Conner et al. reference because the references purportedly disclose timers that are equivalent to the timer disclosed by the recited invention of claims 1 and 11. Applicant respectfully disagrees with the Examiner's proposed attempt to combine these references.

For reference structures to be properly combined and thereby render a claimed invention obvious, there must be some motivation for the combination i.e. there must be some teaching, suggestion, or incentive to make the combination claimed by the applicant. *Northern Telecom, Inc. v. Datapoint Corp.* 15 USPQ2d 1321, 1323 (CAFC 1990). Motivation coming from the applicant's own disclosure is not sufficient. Nor is it sufficient that those of ordinary skill in the art had the capability to combine the referenced structure or understood the advantages of the combination. Although an Examiner may suggest that the structure of a primary prior art reference *could* be modified in view of a secondary prior art reference to form the claimed structure, the mere fact that the prior art *could* be so modified does not make the modification obvious *unless the prior art suggested the desirability of the modification.* *In re Newell*, 891 F.2d 899, 13 USPQ2d 1248 (CAFC 1989). (Emphasis added.)

Here the Examiner is attempting to combine the O'Donnell Jr. reference with the Amano reference or the O'Connor reference based on the disclosed timer of each reference. Applicant asserts the Examiner has provided no motivation, other than the Applicant's own disclosure, to combine the cited references. Applicant further asserts that no such motivation exists. Although O'Donnell

Serial No.09/726,325
HP Docket No: 10003484-1

could arguably be combined with Amano or O'Conner et al., this modification is not obvious in light of the recited invention since there is no suggested desirability within the O'Donnell Jr. reference to include a timer for determining the particular rate at which a sensor is sampled as recited in claims 1 and 11 of the present invention.

Consequently, with regard to the O'Donnell Jr. reference alone, since the implementation of date and time clocks by a memory cartridge for security and document authentication, as taught by O'Donnell Jr. does not teach or suggest the implementation of a circuit that includes a timer for determining the particular rate at which a sensor is sampled, as recited in the present invention, the O'Donnell Jr. reference does not teach or suggest every limitation of the recited invention of claims 1 and 11. Claims 1 and 11 are therefore allowable over the obviousness rejection that is based on the O'Donnell Jr. reference alone.

With regard to the Examiner's proposed combination of references, since there is no suggested desirability within the O'Donnell Jr. reference to include a timer for determining the particular rate at which a sensor is sampled as recited in claims 1 and 11, there is no motivation to combine the O'Donnell Jr. reference with either the Amano reference or the O'Conner et al. reference. Claims 1 and 11 are accordingly allowable over the Examiner's obviousness rejections.

Claims 2, 3 and 5-10 and 12, 13 and 15-23

Since claims 2, 3 and 5-10 and 12, 13 and 15-23 are respectively dependent on claims 1 and 11, the above-articulated arguments with regard to claims 1 and 11 apply

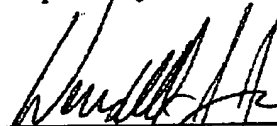
Serial No.09/726,325
HP Docket No: 10003484-1

with equal force to 2, 3 and 5-10 and 12, 13 and 15-23. Accordingly, claims 2, 3 and 5-10 and 12, 13 and 15-23 should be allowed over the Examiner's cited reference.

Applicant believes that this application is in condition for allowance.

Accordingly, Applicant respectfully requests reconsideration, allowance and passage to issue of the claims as now presented. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,



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